

R E P O R T R E S U M E S

ED 016 799

VT 002 884

OCCUPATIONAL PROBLEMS AND VOCATIONAL TRAINING NEEDS OF HIGH SCHOOL DROP-OUTS FROM RURAL AREAS IN IOWA.

BY- HOWE, TREVOR G. BUNROCK, KERMIT
IOWA STATE UNIV. OF SCIENCE AND TECH., AMES

PUB DATE NOV 66

CONTRACT OEC-5-85-108

EDRS PRICE MF-\$0.50 HC-\$2.52 61P.

DESCRIPTORS- *VOCATIONAL EDUCATION, JOB SKILLS, *EDUCATIONAL NEEDS, UNEMPLOYMENT, HIGH SCHOOLS, *DROPOUTS, DROPOUT PROBLEMS, INDIVIDUAL CHARACTERISTICS, *PROGRAM ATTITUDES, EMPLOYMENT EXPERIENCE, IOWA,

OF 224 DROPOUTS IDENTIFIED FROM PREVIOUS STUDIES OF 13,000 STUDENTS IN 109 HIGH SCHOOLS IN 16 IOWA COUNTIES, 102 STILL IN THE STATE WERE PERSONALLY INTERVIEWED TO IDENTIFY OCCUPATIONAL PROBLEMS AND VOCATIONAL TRAINING NEEDS FOR THE 10-YEAR PERIOD FOLLOWING WITHDRAWAL FROM SCHOOL. NEARLY ALL OF THE DROPOUTS WERE MARRIED AND HAD CHILDREN, WERE FROM LARGE FAMILIES AND HAD BROTHERS AND SISTERS WHO HAD ALSO DROPPED OUT, AND A RELATIVELY HIGH PERCENTAGE WERE FROM RURAL COMMUNITIES. MALES GAVE LOSS OF INTEREST OR DISLIKE OF SCHOOL AND COURSES, AND FEMALES GAVE MARRIAGE OR PREGNANCY AS MAJOR REASONS FOR LEAVING SCHOOL. MALES ATTRIBUTED THEIR YEAR OF UNEMPLOYMENT SINCE LEAVING SCHOOL TO ADJUSTMENT AND UNEMPLOYMENT DIFFICULTIES. THE MEDIAN INCOME HAD RISEN FROM \$59 PER WEEK FOR THEIR FIRST JOB TO \$109 FOR THEIR CURRENT JOB. NEARLY ALL CLAIMED TO BE SATISFIED WITH PRESENT JOBS. OVER ONE-HALF OF BOTH MALES AND FEMALES INDICATED INTEREST IN FURTHER JOB TRAINING, AND 24 HAD ALREADY RECEIVED SOME SINCE HIGH SCHOOL. MALES WERE INTERESTED IN SKILLED CRAFT AREAS AND THE SPECIFIC AREAS OF MECHANICS, AGRICULTURE, DRAFTING, ELECTRONICS, AND WELDING. FEMALES DESIRED TRAINING IN SECRETARIAL AREAS, COSMETOLOGY, MEDICAL TECHNOLOGY, AND NURSING. DROPOUTS' SUGGESTIONS FOR IMPROVING THE SCHOOLS INCLUDED CURRICULUM EXPANSION TO INCLUDE VARIOUS TYPES OF VOCATIONAL-TECHNICAL EDUCATION, SPECIAL TEACHERS, CLASSES FOR SLOW LEARNERS, MORE INDIVIDUAL HELP, AND BETTER COUNSELING. TABLES OF DATA AND THE INTERVIEW SCHEDULE ARE INCLUDED. THIS REPORT APPEARS IN "APPENDIX OF FINAL RESEARCH REPORTS FOR PROJECT IN RESEARCH AND DEVELOPMENT IN VOCATIONAL AND TECHNICAL EDUCATION, NON-METROPOLITAN AREAS (ED 011 069) WHICH SUPPLEMENTS VT 001 546. (JM)

EDO 16799

**OCCUPATIONAL PROBLEMS AND VOCATIONAL TRAINING NEEDS
OF HIGH SCHOOL DROP-OUTS FROM RURAL AREAS IN IOWA ,**

**Project No. 2
Contract No. O. E. 5-85-108**

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION**

**THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.**

2 **Trevor G. Howe
Kermit Buntrock**

November 1966

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Iowa State University of Science and Technology

**Ames, Iowa
50010**

TABLE OF CONTENTS

	Page
I. INTRODUCTION	B-1
II. METHOD	B-3
III. RESULTS	B-5
IV. DISCUSSION	B-23
V. CONCLUSIONS	B-24
VI. SUMMARY	B-25
VII. REFERENCES	B-28
VIII. APPENDICES	BA-1
APPENDIX BA. ADDITIONAL TABLES	BA-1
APPENDIX BB. COPY OF LETTER TO DROPOUTS	BB-1
APPENDIX BC. INTERVIEW SCHEDULE	BC-1

LIST OF TABLES

	Page
Table 1. Distance of residence from county in which dropouts attended high school	B-5
Table 2. Distribution of ages of dropouts	B-7
Table 3. Years of marriage of 102 dropouts	B-7
Table 4. Number of children of 95 married dropouts	B-8
Table 5. Number of jobs held by dropouts since leaving school	B-8
Table 6. Median incomes of high school dropouts for three selected jobs	B-9
Table 7. Job satisfaction for the first job held by the dropouts	B-9
Table 8. Job satisfaction for the job of longest duration excluding the first and last jobs held by the dropouts	B-10
Table 9. Job satisfaction for the present job held by dropouts	B-10
Table 10. Number of brothers and sisters of the dropouts	B-11
Table 11. Number of brothers and sisters who dropped out of school	B-11
Table 12. Last grade completed by the spouse of the dropouts	B-11
Table 13. Weekly incomes of the female dropouts' husbands	B-12
Table 14. Last grade completed by 102 dropouts	B-13
Table 15. Reported month of withdrawal for 102 dropouts interviewed	B-13
Table 16. Class sizes of dropouts interviewed	B-14
Table 17. Residence during high school of 102 dropouts interviewed	B-14

	Page
Table 18. Mean importance of course areas taken by male dropouts	B-14
Table 19. Mean importance ratings of course areas taken by female dropouts	B-15
Table 20. Mean interest ratings of course areas taken by male dropouts	B-16
Table 21. Mean interest ratings of course areas taken by female dropouts	B-16
Table 22. Mean difficulty ratings of course areas by male dropouts	B-17
Table 23. Mean difficulty ratings of course areas by female dropouts	B-17
Table 24. Number of extra-curricular high school activities for 102 dropouts interviewed	B-19
Table 25. Rank in class as reported by 102 dropouts interviewed	B-19
Table 26. Last grade completed by the parents of 102 dropouts interviewed	B-20
Table 27. Influence of parents for remaining in school	B-20
Table 28. Influence of friends for dropouts' remaining in school	B-20
Table 29. Length of time dropout had considered leaving school	B-21
Table 30. Major reasons for dropping out given by 102 dropouts interviewed	B-22
Table 31. Detailed census classification of first occupations of dropouts after leaving high school	BA-2
Table 32. Detailed census classification of job of longest duration excluding first and last jobs held by dropouts	BA-4
Table 33. Detailed census classification of dropouts' present occupations	BA-6

	Page
Table 34. Weekly incomes for the first jobs dropouts held after leaving high school.	BA-8
Table 35. Weekly incomes for the job of longest duration excluding first and last jobs held by 102 dropouts	BA-8
Table 36. Present weekly incomes for 102 dropouts interviewed	BA-8
Table 37. Detailed census classification of occupations of dropouts' fathers	BA-9
Table 38. Detailed census classification of occupations of female dropouts' husbands	BA-11

I. INTRODUCTION

The continuing exodus of youth from high school before graduation has received increasing attention from both educators and the general public. Scarcely a week passes that either a newspaper or magazine has not carried an article concerned with the dropout problem.

President Kennedy's State of the Union message to congress on January 14, 1963, made reference to the four out of ten students in fifth grade who would not finish high school. This he referred to as a waste we cannot afford. President Johnson reiterated this concern in a recent speech by referring to dropping out of school as playing a game of Russian Roulette.

The National Education Association (4) published a research memo on school dropouts. The memo presented statistics on a nation wide basis to the effect that roughly seven pupils in ten who enter the ninth grade now remain in school through graduation. For Iowa, about 20.9 percent of the ninth grade pupils fail to graduate four years later.

Daniel Schrieber (5) estimated that there will be 26 million young people entering the labor market between 1960 and 1970 with 7 1/2 million being youth with less than 12 years of education. Schrieber further contended that the high rate of unemployment among dropouts was because their training fitted them for jobs which were rapidly disappearing from the labor market.

Perhaps an even more serious but somewhat less obvious aspect of the problem was the costs born to the nation as a result of this undertraining of manpower. Kastner (3) assumed a casual relationship between educational level and income and then derived an average marginal educational income by computing the average additional increment to income resulting from the completion of an additional level of educational training. The average cost of dropping out of high school, according to Kastner, was \$65,873 per dropout. Kastner concluded with the following statement:

"If the dropouts at the various levels had continued their education to that level commensurate with their abilities, national income would be at least twice as large as its current level."

The seriousness of the problem can hardly be overstated.

Greater insight into the dropout problem was provided by studies conducted in two of the larger cities in Iowa. Gronert (1) used the follow-up technique to study male withdrawals from

North High School, in Des Moines. Over 43 percent of the dropouts were unemployed one or more months during the first year after withdrawal. Ware (7) interviewed male students who withdrew from the Fort Dodge Senior High School. Lack of success in required courses, inability to get along with teachers, and discipline problems were cited as factors contributing to student withdrawal.

The study being reported was concerned with the Occupational Problems and Vocational Training needs of High School dropouts. By means of a personal interview, information was gathered and analyzed for the ten year period after the dropouts withdrew from high school.

Objectives

The objectives of this study were:

1. To analyze the job histories and periods of unemployment since leaving school.
2. To verify primary and secondary causal reasons for leaving school.
3. To identify socio-economic and psychological factors causing dropouts.
4. To identify characteristics of the potential dropout.
5. To identify adjustment difficulties after leaving school and job skill deficiencies encountered in entry occupations.
6. To determine vocational training needs immediately after leaving school.
7. To identify attempts by the dropout to improve employability through educational efforts.
8. To determine present occupation and status.
9. To determine present vocational training needs as related to vocational interests and family responsibilities.
10. To utilize the information collected as a basis for curriculum adjustment, improved guidance and other changes to help reduce the rate of dropout.

Hypotheses

The following general form of null hypothesis was postulated, of no difference between value ratings assigned by males and females on courses taken as to interest, difficulty and importance. The chi square statistical technique was used to test the null hypothesis for each of the high school courses taken.

Definition of Dropout

The term dropout as used in this study was used to designate pupils who had completed the eighth grade and were enrolled in the ninth grade, who had been in membership during the regular school term and who had withdrawn from membership before graduating from secondary school or the twelfth grade and without transferring to another school. An individual was considered a dropout whether the dropping out occurred during or between regular school terms.

II. METHOD

Two previous studies designed to determine the need for and interest in vocational-technical education were conducted by Howe (2) and Van Ommeren (6) in 1961. One-hundred and nine high schools from 16 counties in north central and northwest Iowa cooperated in the original studies. The 16 counties were: Bremer, Butler, Cerro Gordo, Chickasaw, Floyd, Franklin, Hancock, Lyon, Mitchell, O'Brien, Osceola, Sioux, Winnebago, Worth and Wright.

In the two studies combined, samples were drawn to include approximately one-fourth of the former students. These samples were taken from a total public school population of 13,000 enrollment in ninth grade for the school years 1952, 1954 and 1956. Questionnaires were used in gathering the data. The two studies yielded replies from 2,624 former students.

Sample

The IBM cards containing the coded information from the two previous studies were sorted and print outs were made for the 224 students identified as dropouts. A list of these individuals was compiled indicating the dropout's name, dropout year, high school last attended and county designation.

County superintendents were sent the list of names for the dropouts from their respective counties and asked to assist in providing current addresses for these individuals. After all 16 counties had reported, the breakdown for addresses was as follows: 127 living in state with known addresses, 40 living out of state, 56 with current addresses unknown, and 1 deceased.

Further attempts to locate the dropouts with unknown addresses were made by contacting high school superintendents and parents. The names of dropouts with current addresses still unknown were turned over to the credit bureau. As a result of these procedures 13 additional in-state addresses were provided, bringing the total number of dropouts with known current addresses in Iowa to 140.

Interview Schedule

A thorough review of the literature preceded the construction of the interview schedule. As new ideas were encountered, they were noted for future reference. Instruments from previous studies were examined and evaluated.

After several revisions, a rough draft of the interview schedule was formulated and copies were given to selected faculty members at Iowa State in the departments of education, statistics, psychology, economics, and sociology for critical evaluation. The schedule was further critiqued by faculty members and students during an educational seminar and by students in the graduate educational research course.

The instrument was pretested using several dropouts from the Ames area and appropriate revisions were made. The final revised schedule contained 47 items which could be classified under the following headings:

1. Personal Characteristics
2. Job Experience
3. Environment and Home Life During High School
4. Occupational and Training Ambitions
5. Opinions Concerning School and Reasons for Dropping Out

A final draft of the interview schedule was cut on a stencil and mimeographed. Eight copies of the schedule with Form 8F-83 attached were sent to the U.S. Office of Education for clearance. Telephone clearance was received on May 27, 1966.

Interviewing

The two graduate students working on the project began conducting personal interviews on June 1, 1966. The interviews continued during June, July and August. Both interviewers had previous experience.

The prospective interviewees were contacted by letter a few days prior to the interview. The letter served as an introduction for the interviewers and contained information about the study.

Coding and Tabulating

The responses to the questions were coded and punched on IBM cards. They were then sorted and tabulated. The analysis of the data was studied, assimilated and interpreted. The results were then classified and reported.

III. RESULTS

The following data were compiled from personal interviews involving 102 former high school dropouts from the following 16 counties in northern Iowa: Bremer, Butler, Cerro Gordo, Chickasaw, Floyd, Franklin, Hancock, Lyon, Mitchell, O'Brien, Osceola, Sioux, Winnebago, Worth, and Wright. The results were arranged under the following headings: present status, job histories, family background, course ratings, occupational interests and training, opinions concerning school and factors related to dropping out, and reasons for dropping out.

Present Status

Many of the dropouts interviewed were living in the same county in which they attended high school. (See Table 1.) The greatest concentration was in Mason City in Cerro Gordo County. (See Figure 1.)

Table 1. Distance of residence from county in which dropouts attended high school

Distance from high school county	Males		Females		Total	
	N	%	N	%	N	%
Same county	24	61.5%	37	58.7%	61	59.8%
Less than 10 miles	2	5.1	5	7.9	7	6.9
10-25 miles	3	7.7	8	12.7	11	10.8
26-50 miles	8	20.5	6	9.5	14	13.7
51-100 miles	1	2.6	3	4.8	4	3.9
Over 100 miles	1	2.6	4	6.4	5	4.9
Total	39	100.0%	63	100.0%	102	100.0%

Of the dropouts interviewed 61 or 59.8% had stayed in the same county and 41 or 40.2% migrated to other counties. This should not be taken as an index for mobility for the population, since only dropouts living in state with known addresses were interviewed. For the original 224 dropouts, if it were assumed that those for whom current addresses were not determined had left their home county, the percentage for those remaining in their home county would drop to 27.2%. The percentage definitely known to have left Iowa was 23.2%. It is strongly suspected that an additional 30.8% had left the state because their current addresses could not be determined. Thus bringing the total number of individuals known or suspected to have left the state up to 54 percent.

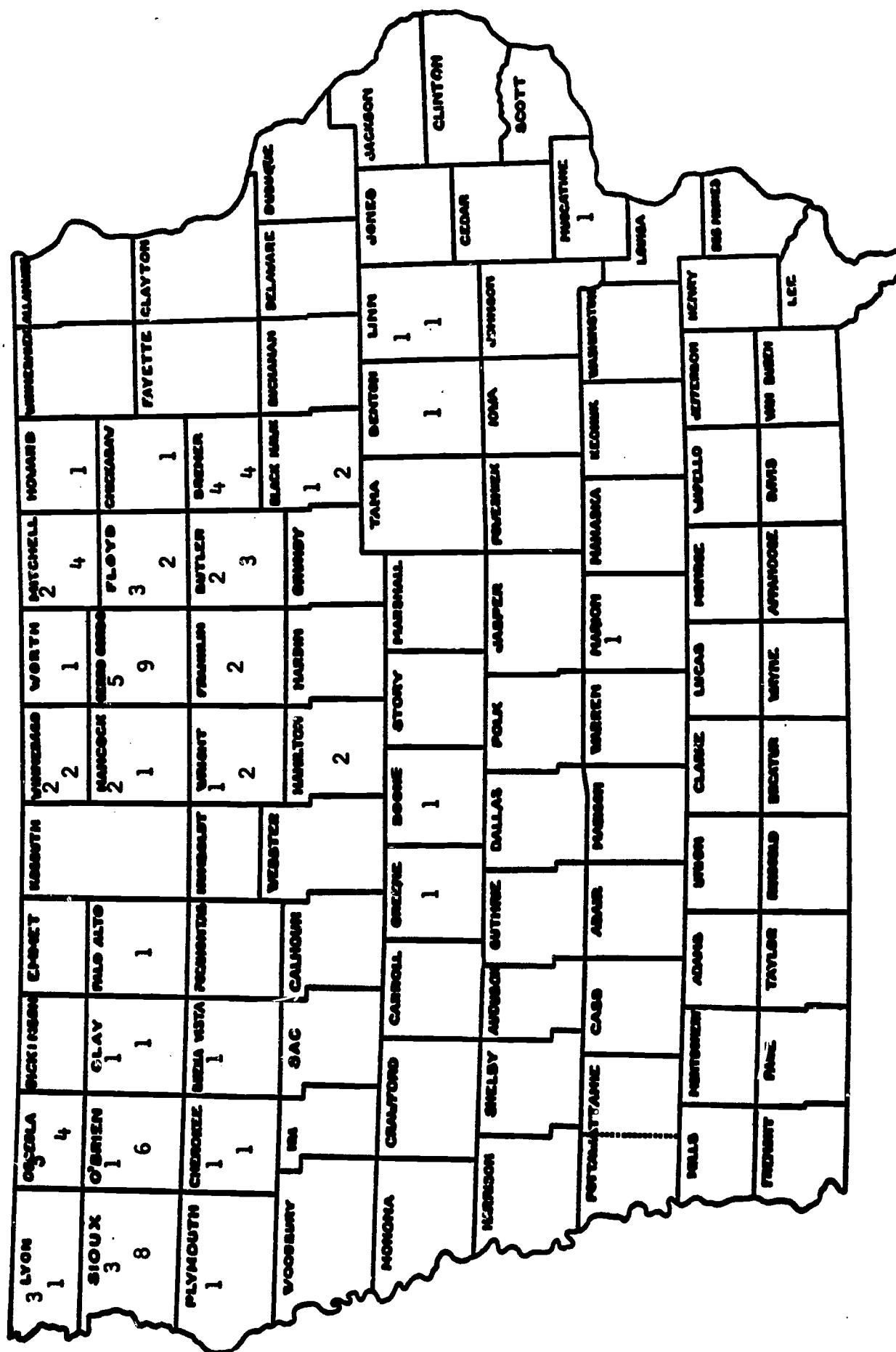


Figure 1. Present residence by county of male (top number) and female dropouts (bottom number) interviewed

All but seven of the dropouts had been married at least once. The average years of marriage was 6.1 for the males and 8.5 for the females. (See Table 3.)

The average number of children for the married male dropouts was 2.29; for the females it was 2.93 (see Table 4). It should be kept in mind that all the dropouts above were less than 32 years old and it is likely that many of the families would have been larger had the study been made at a later date.

Most of the dropouts interviewed were between 24 and 26 years old with the average age being 25.94 years (see Table 2).

Table 2. Distribution of ages of dropouts

<u>Age</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
23 or younger	3	4	7
24-26	19	38	57
27-29	16	21	37
30-32	1		1
Total	39	63	102

Table 3. Years of marriage of 102 dropouts interviewed

<u>Years of marriage</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
Less than 2	4	1	5
2-4	7	5	12
5-7	16	18	34
8-11	8	30	38
12-15		5	5
Never married	4	3	7
Total	40	62	102

Job Histories

A dropout was considered to have entered the labor force at the time he took his first job after leaving high school. The average length of time in the labor force was 8.57 years for the males and 3.62 years for the females. The average length of time which had elapsed since leaving school was 9.56 years for the males and 10.92 years for females. For both males and females there was a considerable difference between the time elapsed since

leaving school and the length of time in the labor force. A good portion of the difference for the females was attributed to late entry or early exit from the labor market due to marriage and family responsibilities. None of the males had left the labor market, so this difference was attributed to late entry into the labor market due to unemployment in the first years after leaving high school.

Table 4. Number of children of 95 married dropouts

<u>Number of children</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
None	4	0	4
1	2	5	7
2	15	18	33
3	10	15	25
4	3	20	23
5 or more	1	2	3
Total	<u>35</u>	<u>60</u>	<u>95</u>

A considerable amount of job switching was revealed in the job histories of the dropouts interviewed. The average number of jobs held by the male dropouts was 3.29 and for the females it was 2.47 (see Table 5).

Table 5. Number of jobs held by dropouts since leaving school

<u>Number of jobs</u>	<u>Males</u>	<u>Females</u>
1	5	16
2	8	9
3	10	8
4	9	5
5	2	3
6	2	1
7	1	
8 or more	1	

Most of the dropouts had a history of being farmers or laborers; only two were presently employed in management or sales (see Table 31, 32, and 33, Appendix A.)

Table 6. Median incomes of high school dropouts for three selected jobs

<u>Job</u>	<u>Males</u>	<u>N</u>	<u>Females</u>	<u>N</u>
First job after leaving high school	\$59	27	\$33	38
Job of longest duration excluding first job and present job	\$80	22	\$36	26
Present job	\$109	34	\$50	14

Table 6 was computed from Tables 34, 35, and 36 shown in Appendix A. Median incomes as displayed in the table showed an increase with each successive job held by the dropouts. This increase, especially for the males, could probably be attributed mostly to increased experience in the labor market. However, it should be pointed out that no correction was made for the rising cost of living index.

Each dropout interviewed was asked to rate job satisfaction for each job held. A five point score was used for rating with the numbers one through five corresponding to the following categories: 5-very satisfied, 4-satisfied, 3-indifferent, 2-not satisfied, 1-very dissatisfied. The mean satisfactions for the males for each of the three successive jobs were 2.78, 2.96, and 3.55 respectively; for the females they were 3.25, 2.81, and 3.47 (see Tables 7, 8, and 9). Thus job satisfaction increased for the males as they searched out the labor market for more desirable jobs. No such pattern existed for the females.

Table 7. Job satisfaction for the first job held by the dropouts

<u>Job satisfaction</u>	<u>Males</u>	<u>Females</u>
Very satisfied	9	13
Satisfied	17	18
Indifferent	4	4
Not satisfied	3	2
Very dissatisfied	2	4
No response	4	22
Total	39	63

Table 8. Job satisfaction for the job of longest duration excluding the first and last jobs held by the dropouts

<u>Job satisfaction</u>	<u>Males</u>	<u>Females</u>
Very satisfied	8	9
Satisfied	17	5
Indifferent	2	3
Not satisfied	2	1
Very dissatisfied	1	3
No response	12	37
Total	39	63

Table 9. Job satisfaction for the present job held by dropouts

<u>Job satisfaction</u>	<u>Males</u>	<u>Females</u>
Very satisfied	21	9
Satisfied	17	5
Indifferent		
Not satisfied		1
Very dissatisfied		
No response	1	48
Total	39	63

Family Background

From Table 10 one can observe that many of the dropouts came from large families. The average number of brothers and sisters was 4.03 for the males and 3.70 for the females. The average number of brothers and sisters who dropped out of school was 1.56 for the males and 1.24 for the females (see Table 11). Of the dropouts interviewed 64.1% of the males and 55.6% of the females came from families in which at least one brother or sister had dropped out.

Thirty of the thirty-five male dropouts or 85.7% married wives who had finished high school (see Table 12). Thirty of fifty-nine or 50.8% of the female dropouts married husbands who had finished high school.

The median income for the husbands of the female dropouts was \$130 per week (see Table 13). Only two of the males had wives working at the time of the study and both were earning between \$60 and \$79 per week.

Table 10. Number of brother and sisters of the dropouts

<u>Number of brothers & sisters</u>	<u>Males</u>	<u>Females</u>
0	1	2
1	10	9
2	4	12
3	6	12
4	2	8
5	6	7
6	4	2
7	1	5
8	3	4
9	2	2

Table 11. Number of brothers and sisters who dropped out of school

<u>Number of brothers & sisters who dropped out of school</u>	<u>Males</u>	<u>Females</u>
0	14	28
1	9	18
2	7	2
3	5	7
4	2	3
5	1	1
6	1	2
7		0
8		2

Table 12. Last grade completed by the spouse of the dropouts

<u>Last grade completed by spouse</u>	<u>Males</u>	<u>Females</u>
8th or less	3	13
9th	1	2
10th	0	5
11th	1	9
12th	29	26
some college	1	4
no response	4	4

Table 13. Weekly incomes of the female dropouts' husbands

<u>Weekly income</u>	<u>Number of husbands earning this income</u>
\$40-59	3
\$60-79	3
\$80-99	9
\$100-119	5
\$120-139	6
\$140-159	7
\$160-179	4
\$180 and above	7
No response	19

The reader is referred to Tables 37 in Appendix A for detail occupational listings of the dropouts' fathers and Table 38 for occupational listing of the female dropouts' husbands.

The median income of the fathers at the time the dropout left school was \$92 per week for the males and \$87 per week for the females. Seven of the male dropouts' mothers and nine of the female dropouts' mothers were working at the time the dropout left school.

The most frequent grade for dropping out among the boys was 10th and for the girls was 11th. (See Table 14.) None of the dropouts interviewed had completed any college work, although it was learned from one of the county superintendents that one dropout had completed a two year program of study at a junior college and one had graduated from a four year college. Four of the dropouts had returned to high school and finished, five had passed a high school equivalency test, one was taking correspondence course, and one was enrolled in a trade school.

Monthly dropout frequencies, presented in Table 15, were useful in revealing certain periods during the year in which dropping out was most frequent. Referring to Table 15, one can see that the dropout rate seemed to reach three peaks, one during September when school first convened, another during February shortly after the second semester started, and a third during May and June which marked the latter part of the school year and the beginning of summer.

Most of the dropouts in the sample came from relatively small schools with 82.4% reporting class sizes of 75 or less (see Table 16). This would tend to indicate that a relatively high percentage

were from rural communities. This contention is borne out in Table 17. Of the boys 56.4% reported a rural residence; 34.9% of the girls reported a rural residence, either rural farm or rural non-farm. For the group as a whole 38.3% resided on a farm during high school.

Table 14. Last grade completed by 102 dropouts interviewed

<u>Grade</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
8th	4	3	7
9th	8	10	18
10th	15	15	30
11th	8	28	36
12th	2	2	4
Passed high school equivalency test	1	4	5
Taking correspondence courses	1		1
Students in trade school		1	1

Table 15. Reported month of withdrawal for 102 dropouts interviewed

<u>Month</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
January	2	4	6
February	8	6	14
March	2	3	5
April		3	3
May	14	20	34
June	4	8	12
July			0
August	3	1	4
September	5	5	10
October	1	4	5
November		2	2
December		7	7

Only three of the 102 dropouts interviewed did not reside with their parents during high school. Ninety-one reported parents living together; parents of six were divorced or separated. For five the father was deceased and the mother living, and for three both parents were deceased.

Table 16. Class sizes of dropouts interviewed

<u>Class size</u>	<u>Number of dropouts</u>
Less than 10	1
10-25	28
26-50	38
51-75	17
76-100	4
Over 100	14

Table 17. Residence during high school of 102 dropouts interviewed

<u>Place of residence</u>	<u>Males</u>	<u>%</u>	<u>Females</u>	<u>%</u>	<u>Total</u>	<u>%</u>
Rural farm	22	56.4%	17	27.0%	39	38.3%
Rural non-farm			5	7.9%	5	4.9%
Urban	17	43.6%	41	65.1%	58	56.8%

Course Ratings

Each dropout interviewed was asked to rate high school course areas he had taken according to importance, interest, and difficulty. The dropout had four categories for rating each course; a score of four was given for the highest rating and a score of one for the lowest rating. (See Tables 18 & 19).

Table 18. Mean importance of course areas taken by male dropouts

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
Industrial Arts	3.593	27
Driver's Education	3.167	12
Mathematics	2.684	38
Bookkeeping/Business	2.500	8
Vocational Agriculture	2.455	11
Science	2.250	36
English	2.158	38
Typing	2.125	8
History, government, and economics	1.714	35

A dropout was not allowed to rate a course area unless he had completed at least one semester in that course area. The right hand column of the table shows the number of dropouts rating each course.

A similar table is shown below for female ratings of twelve course areas.

Table 19. Mean importance rating of course areas taken by female dropouts

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
Driver's Education	3.658	38
Home Economics	3.491	53
Sociology/Psychology	3.200	10
English	3.032	63
Bookkeeping/Business	2.727	22
Music	2.622	37
Mathematics	2.500	62
Typing	2.167	42
Science	2.000	59
History, government, and economics	1.885	61
Geography	1.813	16
Shorthand	1.778	9

Courses in history, government, and economics were rated low in importance by both the males and females. Special interest courses such as home economics, driver's education, and industrial arts rated high.

As indicated by the tables the males tended to rate science and mathematics higher than the females, and the females rated English higher than did the males. These differences were tested statistically using the original ratings and the χ^2 test. Non significant tests at the .05 level resulted for both science and mathematics. However, the test for English was found highly significant at the .001 level.

For males industrial arts, driver's education, and vocational agriculture were most interesting, for females sociology and psychology, driver's education, and home economics were most interesting (see Tables 20 & 21).

It was interesting to note that the required core curriculum courses taken by both males and females (science, mathematics,

Table 20. Mean interest ratings of course areas taken by male dropouts

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
Industrial Arts	3.704	27
Driver's Education	3.500	12
Vocational Agriculture	3.455	11
Bookkeeping/Business	3.250	8
Typing	3.000	8
Science	2.972	36
Mathematics	2.211	38
History, government, and economics	1.800	35
English	1.526	38

Table 21. Mean interest ratings of course areas taken by female dropouts

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
Sociology/Psychology	3.800	10
Driver's Education	3.605	38
Home Economics	3.434	53
Bookkeeping/Business	3.409	22
Music	3.324	37
Typing	3.071	42
Shorthand	2.889	9
Science	2.746	59
English	2.619	63
History, government, and economics	2.131	61
Geography	2.125	16
Mathematics	2.081	62

history, government, economics, and English) rated well in the lower half of both tables. Mathematics was rated lowest by females, and English was rated lowest by males.

Females rated English noticeably higher than males. This difference was tested statistically and the χ^2 value was significant at the .001 level.

The dropouts were also asked to rate course areas according to difficulty. The scoring for difficulty rating was as follows:

one for not difficult, two for slightly difficult, three for difficult, and four for very difficult (see Tables 22 & 23).

Table 22. Mean difficulty ratings of course areas by male drop-outs

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
English	2.711	38
Mathematics	2.395	38
History, government, and economics	2.176	35
Science	1.944	36
Bookkeeping/Business	1.875	8
Typing	1.625	8
Vocational Agriculture	1.182	11
Industrial Arts	1.000	27
Driver's Education	1.000	12

Table 23. Mean difficulty ratings of course areas by female dropouts

<u>Course area</u>	<u>Mean rating</u>	<u>N</u>
Mathematics	2.365	63
Shorthand	2.111	9
History, government, and economics	1.885	61
English	1.746	63
Science	1.695	59
Geography	1.533	16
Bookkeeping/Business	1.455	22
Typing	1.381	42
Sociology/Psychology	1.200	10
Music	1.135	37
Home Economics	1.113	53
Driver's Education	1.000	38

Driver's education, industrial arts, and vocational agriculture were the least difficult for males; driver's education, home economics, and music were least difficult for females. Mathematics was most difficult for females and English was most difficult for males.

The females rated English considerably higher than the males. This difference was tested statistically and the χ^2 value was found significant at the .001 level.

Occupational Interests and Training

The occupations considered most frequently by the males during high school were farming, mechanical areas, and skilled crafts such as carpentry, plastering, drafting, engineering, and electrical areas. The female dropouts were most interested in nursing, and service work such as secretarial, cosmetology, and teaching.

Only 36.5% of the females and 30.8% of the males said that their high school had offered courses pertinent to their occupational interests. Yet only 3 of the 39 males and 4 of the 63 females reported they would have remained in school if such courses had been offered.

Fifty-five and five tenths percent of the males and 56.4% of the females indicated that they would be interested in further job training. Questions asked the dropouts suggested implications for post-high programs in vocational and technical education for occupational training in new area schools. The training desires for males were mostly in skilled craft areas and the specific areas of mechanics, agricultural, drafting, electronics, and welding. Females desired training in secretarial areas, cosmetology, medical technology, and nursing. Most of the dropouts indicated they would prefer to take such training in the evenings on a part time basis due to occupational and household responsibilities.

Twelve of 63 females and 12 of 39 males reported that they had received some special occupational training since leaving school.

Of the males, 51.3% indicated they were interested in a high school equivalency certificate; 68.3% of the females were interested. The dropouts felt the most desirable way of obtaining the certificate was via the test administered by the State Board of Public Instruction.

Opinions Concerning School and Factors Related to Dropping Out

Seventeen of the 39 male dropouts and one of 63 female dropouts interviewed owned their own car during high school.

Table 24. Number of extra-curricular high school activities for 102 dropouts interviewed

<u>Number of extra-curricular activities</u>	<u>Males</u>	<u>Females</u>
None	13	20
1	8	12
2	11	13
3	5	8
4	1	5
5	1	2
6		2
7 or more		1

The most frequent extra-curricular activities listed were sports for the males and band or chorus for the females (see Table 24). The average number of activities was 1.38 for the males and 1.95 for the females. A χ^2 test for difference using three degrees of freedom was found non-significant at the .05 level.

The most frequent hobbies of the dropouts during high school were bowling, roller skating, and going to movies.

Twenty-two of the male dropouts and three of the female dropouts reported that they had missed school for employment or for work at home. The most common reasons for missing were farm work for the family during heavy seasons and farm or housework to help out because of illness or injury in the family.

Twenty-six of the females and 18 of the males said they had repeated one or more courses or grades during school. 12.8% of the males and 42.1% of the females ranked themselves in the upper half of their class; 38.5 of the males and 19.0% of the females reported they were in the lower fourth of their class (see Table 25).

Table 25. Rank in class as reported by 102 dropouts interviewed

<u>Rank in class</u>	<u>Males</u>	<u>Females</u>
Upper 1/4	0	5
Second 1/4	5	21
Third 1/4	19	25
Lower 1/4	15	12
Total	39	63

Table 26. Last grade completed by the parents of 102 dropouts interviewed

<u>Last grade completed</u>	<u>Males</u>		<u>Females</u>	
	<u>Fathers</u>	<u>Mothers</u>	<u>Fathers</u>	<u>Mothers</u>
4th or less	1	0	0	0
5th	1	0	1	1
6th	6	1	6	4
7th	5	2	2	1
8th	16	18	25	20
9th	0	0	2	5
10th	3	1	6	4
11th	1	2	2	3
12th	2	11	10	17
college	1	2	2	3
didn't know	3	2	7	5

Thirty-three of the 39 male dropouts' fathers and 44 of the 63 female dropouts' fathers had not finished high school (see Table 26). Twenty-four of the 39 male dropouts' mothers and 38 of the 63 female dropouts' mothers had not finished high school.

Table 27. Influence of parents for remaining in school

<u>Did parents urge dropouts to remain in school</u>	<u>Males</u>	<u>Females</u>
Yes	27	33
No	11	29
No response	1	1

Table 28. Influence of friends for dropouts' remaining in school

<u>Did friends urge dropout to remain in school</u>	<u>Males</u>	<u>Females</u>
Yes	22	17
No	16	45
No response	1	1

Twenty-seven of the 39 males and 33 of the 63 females said that parents urged them to remain in school. (See Table 27.) A smaller number of friends urged the dropouts to remain in school (see Table 28). Seven of the males and seven of the females reported that their best friend was out of school at the time they dropped out.

Twenty-two of the males and 42 of the females said their teachers seemed interested in them. Thirty-two of the males and 51 of the females claimed their teachers gave individual help when asked.

Thirteen of the males and 18 of the females reported a dislike for certain teachers or school officials. All 13 of the males and 11 of the females said this contributed to their dropping out.

One male and two females reported having unpleasant experiences with other students. Four males and six females reported unpleasant experiences with teachers.

Five of the males and nine of the females reported they were unhappy living at home.

Five of the males and four of the females had previously dropped out of school, reentered, and finally dropped permanently.

Table 29. Length of time dropout had considered leaving school

<u>Length of time</u>	<u>Males</u>	<u>Females</u>
Spontaneous decision	6	7
Less than 1 month	6	11
1-3 months	17	32
3-6 months	3	4
6 months to 1 year	3	4
More than 1 year	2	1

Dropping out of school is often regarded as a process rather than a single event. Only 6 of the males and 7 of the females reported dropping out was a spontaneous decision (see Table 29). The most frequent length of time the dropouts had considered leaving school was one to three months.

Reasons for Dropping Out

Marriage or pregnancy topped the list of reasons for dropping out for the females (see Table 30). Males listed loss of interest or dislike of school and courses most frequently as the major reason for dropping out.

Table 30. Major reasons for dropping out given by 102 dropouts interviewed

<u>Reason</u>	<u>Males</u>	<u>%</u>	<u>Females</u>	<u>%</u>
Marriage or pregnancy	3	7.7	36	57.1
Loss of interest or dislike of school and courses	18	46.2	10	15.9
Teacher difficulty	4	10.3	4	6.3
Academic difficulty	5	12.8	3	4.8
Health reasons	1	2.6	4	6.3
Financial reasons or desire to work	1	2.6	3	4.8
Personal reasons i.e. lack of clothes, non-acceptance by peers, unfriendly cliques, etc.	1	2.6	2	3.2
Enlistment in armed forces	2	5.1		
Change of schools	1	2.6	1	1.6
Unhappy home life	1	2.6		
Divorce of parents and necessary to work	1	2.6		
Illness of father and necessary to help with the farm work	1	2.6		

Opinions of the Dropouts on Selected Topics

The dropouts interviewed were told of the following situation:

One community in California assigns a local businessman as an advisor to potential dropouts. He takes the student on various outings such as sporting events, plays, or sometimes lunch.

After they become well acquainted they discuss the student's future occupational and educational plans.

Thirty-eight of 39 males thought this was a good idea; twenty-three females reacted favorably to the statement, thirty-five were undecided, and five were opposed. Several of the dropouts commented that such a program might have kept them in school.

Responses by the dropouts interviewed as to ways in which their school could have been more helpful were distributed as follows:

**22 - Curriculum expansion or course improvement
(implication for occupational education)**

- 8 - Special teachers or classes for slow learners
- 6 - Teacher improvement
- 3 - More individual help
- 2 - Better counseling
- 2 - Improvement of social climate, i.e. less cliques, etc.
- 2 - Better background in reading, spelling, and phonics
- 2 - Extra-curricular improvement.

Numerous other comments not classified.

IV. DISCUSSION

In general the dropouts interviewed were friendly and quite cooperative. Interviewers were careful to stress the importance of the study without identifying it as a dropout study. Women especially were quite receptive, frequently conversing after the interviews were completed. The male dropouts tended to be a bit more skeptical about giving up a half hour of their time.

Difficulty was encountered in finding the dropouts' residences or in finding them at home in a number of cases. Since the interviewers were working from a fixed list with no replacements possible, numerous callbacks were necessary to assure a sufficient number of completed schedules.

It was learned in attempting to locate a number of dropouts that their parents had been tenants on rented farms. Such families tended to be quite mobile and often left no forwarding address.

Of the 140 dropouts on the original list, twelve had moved out of state, thirteen had moved and left no forwarding address, two others had been evicted from their dwellings, and one was in the State Penal Institution in Fort Madison. Two calls were not made, one because of a warning by the State Board of Health due to infectious hepatitis and one because of a warning by police and postal authorities not to enter the premises. Appointments for interviewing could not be arranged for eight of the dropouts. Only two outright refusals were encountered.

Thirty-nine males and 63 females were interviewed for a total of 102 of the original 140. A greater number of completed schedules for females than males was due mostly to unavailability of the males during the working day. Nearly all of the completed schedules for the male dropouts resulted from evening calls.

In some cases respondents had difficulty in understanding terminology of certain questions. Although each interview was designed to take about a half hour, a number took over 45 minutes. In these instances repeated explanation of questions and probing by the interviewers for clear responses prolonged interviews.

The fact that many of the dropouts were of a lower than average socio-economic class became apparent as interviewing progressed. Most of the dropouts came from large families. Many had parents who had not graduated from high school and had brothers and sisters who also had dropped out. Most of the parents were farmers or laborers; few had parents in the professions, management, or sales.

For the dropouts themselves only two were employed in management or sales, the rest being farmers or laborers. A number of the dropouts were untidy in their personal appearance.

Perhaps one of the most remembered facets of interviewing was the appearance of their housing. Scarcely any of the dropouts lived in what could be classified as the nicer areas of town. In fact, interviewers could frequently identify the dropouts' dwellings by unkept front lawns, porches in need of repair, or housing with an old, shabby appearance.

V. CONCLUSIONS

Only in a few cases was the decision to leave school a spontaneous one for the dropout, and for this reason has been sometimes referred to as the dropping out process. Often teachers, school officials, or parents could have provided that timely little extra encouragement which might have kept the dropout in school. Because of the necessity to identify the potential dropout before withdrawal, increasing attention has been placed upon identifying characteristics common to most dropouts. The description that follows generalizes the characteristics of dropouts in this study.

Most dropouts came from families of a low socio-economic class. Frequently the families were large and already had a history of brothers or sisters dropping out of school. Parents seldom had a high school education and frequently had less than eight years of formal education. Fathers tended to be employed as craftsmen, farmers, or laborers.

The dropouts themselves often showed a marked disinterest in school and related activities. Very few took an active part in extra-curricular activities. Dislike of certain teachers or school officials was common.

Course interests tended to be in areas other than the traditional core curriculum of English, mathematics, history and science. Females disliked mathematics and males showed a strong dislike for English. Of all the courses required, core courses were taken most frequently and hence the dislike for school was often intensified.

Frequently the potential dropout had a history of scholastic failure and usually ranked in the lower half of his class.

Vocational interests for the males tended to follow the craft lines frequently similar to their fathers. Auto mechanics and farming were frequent occupational goals for the males; secretarial work and nursing interested the girls.

Recommendations

1. Expanded curriculum offering to include additional vocational or technical courses.
2. To utilize information on characteristics of potential dropouts for early identification and corrective action.
3. Special assistance to pupils having difficulty especially in core curriculum courses.
4. To provide expanded guidance services.
5. Utilizing high school coop programs when vocational courses cannot be offered.
6. To provide an opportunity for the development of interest and motivation.
7. To make adult or correspondence courses leading to a high school certificate available especially to girls who had dropped out of school because of marriage.
8. Follow-up and assistance to dropouts in securing employment or additional training.

VI. SUMMARY

Data for this study were compiled from personal interviews involving 102 former high school dropouts from the following counties in northern Iowa: Bremer, Butler, Cerro Gordo, Chickasaw, Floyd, Franklin, Hancock, Lyon, Mitchell, O'Brien, Osceola, Sioux, Winnebago, Worth, and Wright. The dropouts interviewed had been out of school from six to fourteen years.

All of the 102 dropouts interviewed were living in Iowa with about half living in the same county in which they had attended high school. Of the original 224 dropouts considered for the sample slightly over 50% had left the state.

Nearly all of the dropouts were married, the female dropouts having been married an average of 8.5 years and the males 6.1 years. The average number of children was 2.93 for the females and 2.29 for the males.

The existence of nearly a year gap between elapsed time since leaving school and length of time in the labor force for the males, was attributed to adjustment and unemployment difficulties in the first years after leaving school. The median income for the males was \$59 per week for their first job after leaving high school and \$109 per week for their present job. Nearly all of the dropouts interviewed claimed to be satisfied with their present job.

Present occupations of the males were distributed as follows: 13 farmers, 1 managerial, 1 sales, 7 craftsmen, 8 operatives, 1 janitor, 2 farm laborers, 5 general laborers, and 1 unemployed. Present occupations of the females were distributed as follows: 47 housewives, 1 managerial, 2 craftsmen, 1 operative, 8 private household workers, 1 farm laborer, 3 general laborers.

Most of the dropouts came from large families and frequently had brothers and sisters who also had dropped out. Many had parents who had not finished high school. Approximately 30% of the dropouts' fathers were farmers, occupations for the rest being nearly evenly distributed among the major census classifications of managers, craftsmen, operative, and laborers.

Each dropout interviewed was asked to rate high school course areas he had taken. The males rated industrial arts and driver's education highest in both importance and interest. English was rated lower in interest than any other course taken by the male dropouts. Sociology and psychology, home economics, and driver's education rated highest for the females in both interest and importance. The traditional core courses of English, mathematics, history, and science were rated least interesting and most difficult by both the males and females.

The following general form of null hypothesis was postulated of no difference between value ratings by males and females on courses taken as to interest, difficulty, and importance. The only course for which the null hypothesis was rejected was English, the chi square value being highly significant. The males ranked English less important, less interesting, and more difficult than did the females.

Fifty-five and five tenths percent of the males and 56.4% of the females indicated that they would be interested in further

job training. Questions asked the dropouts suggested implications for post-high programs in vocational and technical education for occupational training in new area schools. The training desires for males were mostly in skilled craft areas and the specific areas of mechanics, agricultural, drafting, electronics, and welding. Females desired training in secretarial areas, cosmetology, medical technology, and nursing. Most of the dropouts indicated they would prefer to take such training in the evenings on a part time basis due to occupational and household responsibilities.

Twelve of 63 females and 12 of 39 males reported that they had received some special occupational training since leaving school. Of the males, 51.3% indicated they were interested in a high school equivalency certificate; 68.3% of the females were interested. The dropouts felt the most desirable way of obtaining the certificate was via the test administered by the State Board of Public Instruction. Through this or similar procedures one male and four females had obtained their High School equivalency certificate. Four of the original dropouts had returned to school and obtained their high school diploma.

Several additional factors contributing to dropping out were examined. They included lack of extra-curricular interests, owning a car, missing school for employment or work at home, low academic standing, influence of parents and friends, reported lack of interest and individual help given by teachers, dislike of teachers or school officials, unpleasant experiences with teachers or other students, an unhappy home life, and a record of previous dismissals or withdrawals from school.

The most common reason for dropping out was loss of interest or dislike of school and courses for the males and marriage or pregnancy for the females.

Thirty-eight of the male dropouts and twenty-three of the females reacted favorably about having an advisor from outside the school system. A number commented such a program might have kept them in school.

Some of the dropouts' suggestions for school improvement included curriculum expansion to include various types of vocational-technical education, special teachers, and classes for slow learners, more individual help, and better counseling.

VII. REFERENCES

1. Gronert, Walter Bertin. A follow-up study of male withdrawals from North High School, Des Moines, Iowa, 1957-1961. Unpublished M.S. thesis. Library, Iowa State University of Science and Technology, Ames, Iowa. 1963.
2. Howe, Trevor G. Pilot study of vocational-technical education in twelve north Iowa counties. Unpublished Ph.D. thesis. Library, Iowa State University of Science and Technology, Ames, Iowa. 1963.
3. Kastner, Harold H. School dropouts and the national economy. *The American School Board Journal*: 11-14, April, 1964.
4. National Education Association of the United States. Research Division. Research Memo No. 1963-10. 1963.
5. Schreiber, Daniel. "The dropout and the delinquent: Promising practices gleaned from a year of study." *Phi Delta Kappan* 44: 215-21; February 1963.
6. Van Ommeren, Ivan Dale. Vocational-technical education in four northwest Iowa counties. Unpublished M.S. thesis. Library, Iowa State University of Science and Technology, Ames, Iowa. 1963.
7. Ware, Clyde Homer. Factors affecting student withdrawal from the Fort Dodge Senior High School, Fort Dodge, Iowa. Unpublished M.V.Ed. field report. Department of Education: Industrial Education, Iowa State University of Science and Technology. Ames, Iowa. 1963.

APPENDIX A: ADDITIONAL TABLES

BA-1

Table 31. Detail census classification of first occupations of dropouts after leaving high school

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
<u>Homemakers</u>			
040	Housewife	-	22
	Total		22
<u>Farmers</u>			
100		<u>7</u>	-
	Total	<u>7</u>	
<u>Managers, Officials, & Proprietors, Except Farm Managers</u>			
290		-	<u>2</u>
	Total		2
<u>Clerical and Kindred Workers</u>			
310	Bookkeepers	-	<u>1</u>
	Total		1
<u>Sales Workers</u>			
490	Salesmen and sales clerks	<u>1</u>	<u>6</u>
	Total	1	6
<u>Craftsmen, Foremen, & Kindred Workers</u>			
510	Carpenters	1	
544	Machinists	1	
550	Auto Mechanics	1	
552	Radio & T.V. Repairmen	—	1
	Total	3	1

Table 31. (Continued)

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
<u>Members of Armed Forces</u>			
595		11	-
	Total	11	
<u>Operatives and Kindred Workers</u>			
610	Apprentice plumbers and pipe fitters	1	
621	Auto Service Attendants	2	
644	Meat Cutters, except Slaughter		1
683	Truck & Tractor Drivers	1	-
	Total	4	1
<u>Private Household Workers & Service Workers</u>			
720	Babysitting		2
730	Hospital Attendants	1	5
754	Cooks, except Private Households		1
784	Waitresses		14
790	Service Workers, except Private Households	-	3
	Total	1	30
<u>Farm Laborers and Foremen</u>			
820	Farm Laborers, wage workers	4	
830	Farm Laborers, unpaid family	2	
	Total	6	
<u>Laborers, Except Farm</u>			
970	Laborers	5	
	Total	5	
Unemployed			
XXX		1	
	Total	1	

Table 32. Detailed census classification of job of longest duration excluding first and last jobs held by dropouts

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
040	<u>Homemakers</u> Housewife		<u>37</u>
	Total		<u>37</u>
100	<u>Farmers</u>	<u>2</u>	
	Total	<u>2</u>	
290	<u>Managers, Officials, & Proprietors, Except Farms</u> Managers	<u>1</u>	
	Total	<u>1</u>	
302	<u>Clerical and Kindred Workers</u> Attendants, Physician's & Dentist's Office		<u>1</u>
310	Bookkeepers		<u>1</u>
342	Shipping & Receiving Clerks	<u>1</u>	—
	Total	<u>1</u>	<u>2</u>
400	<u>Sales Workers</u> Advertising Agents & Salesmen	<u>1</u>	
490	Salesmen and Sales Clerks	—	<u>2</u>
	Total	<u>1</u>	<u>2</u>
510	<u>Craftsmen, Foremen, & Kindred Workers, Armed Forces</u> Carpenters	<u>1</u>	
522	Excavating, Grading, & Road Machine Operators	<u>1</u>	
574	Plumbers & Pipe Fitters	<u>1</u>	
595	Members of Armed Forces	<u>4</u>	
	Total	<u>7</u>	

Table 32. (Continued)

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
<u>Operatives & Kindred Workers</u>			
643	Laundry & dry cleaning operatives		1
644	Meat Cutters, Except Slaughter	1	
681	Switchmen, Railroad	1	
682	Taxicab Drivers & chauffeurs		1
683	Truck & Tractor Drivers	2	
690	Operatives & Kindred Workers	<u>2</u>	—
	Total	6	2
<u>Service Workers & Private Household Workers</u>			
720	Private Household Workers		1
730	Attendants, Hospital & Other Institutions		1
754	Cooks, Except Private Household		1
750	Bartenders		1
784	Waitresses		10
790	Service Workers, Except Private Households	<u>1</u>	—
	Total	1	14
<u>Farm Laborers & Foremen</u>			
820	Farm Laborers, wage workers	<u>3</u>	
	Total	3	
<u>Laborers, Except Farm & Mine</u>			
970	Laborers	<u>7</u>	
	Total	7	
<u>Unemployed</u>			
XXX		<u>1</u>	
	Total	1	

Table 33. Detailed census classification of dropouts' present occupations

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
<u>Homemakers</u>			
040	Housewife		47
	Total		47
<u>Farmers</u>			
100		13	
	Total	13	
<u>Managers, Officials, & Proprietors, Except Farm Managers</u>			
233	Manages Service Station	1	
290	Managers	—	1
	Total	1	1
<u>Craftsmen, Foremen, & Kindred Workers</u>			
500	Bakers		1
510	Carpenters	1	
515	Electricians	1	
540	Linemen & servicemen	1	
544	Machinists	1	
552	Radio & T.V. Repairman		1
553	Repairmen, Railroad & Shop	1	
554	Mechanics & Repairmen	1	
574	Plumbers & Pipe Fitters	1	—
	Total	7	2
<u>Operatives & Kindred Workers</u>			
603	Apprentice Electricians	1	
610	Apprentice Plumbers & Pipe Fitters	1	
683	Tractor & Truck Drivers	3	
690	N.E.C. ^a	3	1
	Total	8	1

Table 33. (Continued)

<u>Code Number</u>	<u>Occupation</u>	<u>Male</u>	<u>Female</u>
<u>Private Household Workers & Service Workers</u>			
720	Private Household Workers		2
730	Attendants, Hospital & Other Institutions		3
770	Janitor	1	
784	Waitresses	—	3
	Total	1	8
<u>Farm Laborers & Foremen</u>			
820	Farm Laborers, Wage Workers	2	
870	Farm Laborers	—	1
	Total	2	1
<u>Laborers, Except Farm & Mine</u>			
970	Laborers	5	3
	Total	5	3
<u>Unemployed</u>			
XXX		1	
	Total	1	

^aNot Elsewhere Classified

Table 34. Weekly incomes for the first jobs dropouts held after leaving high school

<u>Weekly income</u>	<u>Males</u>	<u>Females</u>
Less than \$20	2	3
\$20-39	5	23
\$40-59	7	7
\$60-79	7	2
\$80-99	4	2
\$100-119	1	1
\$120-139		
\$140-159		
\$160-179	1	
No response	12	25

Table 35. Weekly incomes for the job of longest duration excluding first and last jobs held by 102 dropouts interviewed

<u>Weekly income</u>	<u>Males</u>	<u>Females</u>
Less than \$20		2
\$20-39	3	14
\$40-59	5	7
\$60-79	4	1
\$80-99	7	2
\$100-119	2	
\$120-139	2	
\$140-159		
\$160-179	1	
No response	15	37

Table 36. Present weekly incomes for 102 dropouts interviewed

<u>Weekly income</u>	<u>Males</u>	<u>Females</u>
Less than \$20	1	3
\$20-39	2	2
\$40-59	1	5
\$60-79	3	2
\$80-99	6	
\$100-119	10	1
\$120-139	2	
\$140-159	3	1
\$160-179	3	
Over 180	3	
No response	5	49

Table 37. Detailed census classification of occupations of dropouts' fathers

<u>Code Number</u>	<u>Occupation</u>	<u>Number</u>
<u>Farmers And Farm Managers</u>		
100	Farmers (owners and tenants)	<u>30</u>
	Total	30
<u>Managers, Officials, & Proprietors, Except Farm</u>		
230	Managers & Superintendents, Building	2
232	Owner & Manager, Grocery	1
233	Manager, Service Station	3
290	N.E.C.	<u>7</u>
	Total	13
<u>Sales Workers</u>		
490	Salesmen	2
491	Partsman	<u>1</u>
	Total	3
<u>Craftsmen, Foremen, And Kindred Workers</u>		
510	Carpenters	5
522	Excavating, Grading, & Road Machine Operators	1
523	Foremen	1
544	Machinists	1
550	Mechanics & Repairmen, Auto	1
573	Plasterers	2
594	N.E.C.	<u>1</u>
	Total	12
<u>Operatives & Kindred Workers</u>		
624	Brakemen, Railroad	1
644	Meat Cutters, Except Slaughter	1
681	Switchmen, Railroad	1

Table 37. (Continued)

<u>Code Number</u>	<u>Occupation</u>	<u>Number</u>
<u>Operatives & Kindred Workers (Cont.)</u>		
683	Truck & Tractor Drivers	9
690	N.E.C.	1
	Total	<u>13</u>
<u>Service Workers, Except Private Households</u>		
770	Janitors	1
	Total	1
<u>Farm Laborers & Foremen</u>		
820	Farm Laborers, Wage Workers	1
	Total	1
<u>Laborers, Except Farm & Mine</u>		
970	Laborers	9
	Total	9

Table 38. Detailed census classification of occupations of female dropouts' husbands

<u>Code Number</u>	<u>Occupation</u>	<u>Number</u>
<u>Professional, Technical, & Kindred Workers</u>		
036	Editors & Reporters	<u>1</u>
	Total	<u>1</u>
<u>Farmers & Farm Managers</u>		
100	Farmers (owners & tenants)	<u>9</u>
	Total	<u>9</u>
<u>Managers, Officials, & Proprietors, Except Farm</u>		
232	Owner & Manager, Grocery	<u>1</u>
290	N.E.C.	<u>3</u>
	Total	<u>4</u>
<u>Sales Workers</u>		
490	Salesmen	<u>2</u>
	Total	<u>2</u>
<u>Craftsmen, Foremen, & Kindred Workers</u>		
501	Blacksmiths	<u>1</u>
504	Brickmasons, Stonemasons, And Tile Setters	<u>1</u>
510	Carpenters	<u>3</u>
540	Linemen and Servicemen	<u>1</u>
544	Machinists	<u>3</u>
550	Mechanics, Auto	<u>1</u>
552	Mechanics, Radio & T.V.	<u>1</u>
554	N.E.C.	<u>1</u>
555	Millers, Grain, Feed, Etc.	<u>1</u>
561	Molders, Metal	<u>1</u>
564	Painters	<u>1</u>
575	Pressmen And Plate Printers	<u>1</u>
	Total	<u>16</u>

Table 38. (Continued)

<u>Code Number</u>	<u>Occupation</u>	<u>Number</u>
<u>Operatives & Kindred Workers</u>		
621	Attendants, Auto Service & Parking	1
624	Brakemen, Railroad	1
644	Meat Cutters, Except Slaughter	1
683	Truck & Tractor Drivers	8
685	Welders & Flame Cutters	1
690	N.E.C.	<u>1</u>
	Total	13
<u>Service Workers, Except Private Households</u>		
790	N.E.C.	<u>1</u>
	Total	1
<u>Farm Laborers & Foremen</u>		
810	Farm Foremen	<u>1</u>
	Total	1
<u>Laborers, Except Farm & Mine</u>		
950	Lumbermen, Raftsmen, & Woodchoppers	2
970	Laborers	<u>8</u>
	Total	10

APPENDIX B: COPY OF LETTER TO DROPOUTS

BB-1

June 1, 1966

DEPARTMENT OF EDUCATION (Letter previously addressed to each dropout)

We are conducting a study concerning vocational education and job training needs of selected individuals from rural Iowa, and we need your help. In this constantly changing world, as present jobs change and new jobs arise, new skills and special training or retraining are necessary. Iowa hopes to meet this challenge by setting up new Area Vocational and Technical Schools. Your interests, needs and suggestions will be considered in planning curricula for these new schools.

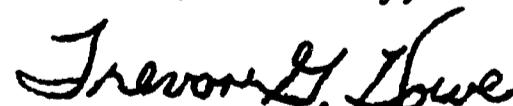
You may remember being included in an earlier study conducted in 1961 dealing with technical and vocational training. Your answers at that time were important and very helpful in determining the need for these new schools. Five years have elapsed since then and we are interested in additional information. In the near future, Larry J. Coppola and Kermit A. Buntrock, two graduate students from Iowa State University, will be calling on you for a personal interview. We sincerely hope that you will permit them to arrange a time, at your convenience, for the interview.

It is realized that some of the information will be of a confidential nature. Please be assured that it will be treated as such. The information will be coded into numbers and processed electronically. This will insure anonymity. Anything released publicly will be in terms of totals and averages.

You are the only person who is able to provide this necessary information. It is quite possible that the information you provide will be very influential in determining not only the educational programs in Iowa but may also influence economic policy in the area of education and employment.

Your assistance and cooperation will be greatly appreciated.
Thank you.

Yours sincerely,



Trevor G. Howe
Associate Professor
of Education

TGH/1s

BB-2

APPENDIX C: INTERVIEW SCHEDULE

INTERVIEW SCHEDULE - SURVEY OF OCCUPATIONAL PROBLEMS AND VOCATIONAL
INDIVIDUAL NUMBER _____ TRAINING NEEDS OF HIGH SCHOOL DROP-
OUTS FROM RURAL AREAS IN IOWA

DATE OF INTERVIEW _____

I. Personal Characteristics

1. Name: _____

Last	First	Middle	Maiden Name
------	-------	--------	-------------

2. Present Address: _____

Street	City	County	State
--------	------	--------	-------

3. High School Last Attended:

_____ High School _____

City	County	State
------	--------	-------

4. Last year attended high school: 19

5. Sex:

- (1) Male
- (2) Female

6. Birth Date: _____ Age: _____

7. Are you:

- (1) Single
- (2) Married
- (3) Widowed
- (4) Divorced
- (5) Remarried

8. (a) How long have you been married (Please circle) 1 2 3 4

5 6 7 8 9 10 11 12 13 14 15 _____

(b) Number of children: 1 2 3 4 5 6 7 8 9 10 _____

9. At present do you:

- (1) Rent a house
- (2) Rent an apartment or duplex
- (3) Buying a home
- (4) Rent a room
- (5) Live with parents
- (6) Live with wife's parents
- (7) Other _____

10. (a) Last high school grade completed: 8 9 10 11 12 _____

(b) Month and year you withdrew from school _____

11. About how many were in your class the last year you were in high school? _____

12. (a) Where did you live during school? (1) With parent(s)
(2) With guardian(s)
(3) Other _____

(b) Were your parents: (1) Living together
(2) Separated
(3) Divorced
(4) Deceased

(c) During high school was your residence: (1) Rural farm
(2) Rural nonfarm
(3) Urban

(d) If rural, were your parents: (1) Farm Owners
(2) Owner-Renters
(3) Renters

13. Do you live in the same county now as where you went to school? _____

(If no) About far do you live from the county in which you went to school? _____

14. About how far from your home is your place of work? _____

15. Religious affiliation: Parents _____
(entirely voluntary) Yours _____

II. Job Experience

16. (a) Did you have any part-time jobs while you attended school? Yes No

	<u>Job Title</u>	<u>Employer's Name</u>	<u>Wages Hour</u>	<u>Hours Week</u>
(1)				
(2)				
(3)				

(b) Did you have any summer jobs? Yes No

	<u>Job Title</u>	<u>Employer's Name</u>	<u>Wages Hour</u>	<u>Hours Week</u>
(1)				
(2)				
(3)				

17. We are interested in what you have been doing since you left school. What was the first job you held? (Interviewer will fill in next page)

***How satisfied were you with the job?**

Reason for leaving job.

Gross Pay (include unemployment comp.)

Hours/Week

Wages/Hour

Means of Obtaining job.

Job Title and Description

Employer's Name and Address

Employment Period (to Nearest Month)

- *1. Very Satisfied**
- 2. Satisfied
- 3. Indifferent
- 4. Not Satisfied
- 5. Very Dissatisfied

(a) Have you ever experienced any difficulty in finding employment

(b) Were you ever turned down for a job for which you applied?

What reasons did the employer give?

III. Environment and Home Life During High School

18. Do you have any brothers and sisters? (Complete form below.)

	<u>Last School</u>				
	<u>Age</u>	<u>Grade Completed</u>	<u>Job Title</u>	<u>Employer</u>	<u>Gross Pay</u>
Use B or S	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
Husband or Wife (whichever appropriate)	—	—	—	—	—
Father	—	—	—	—	—
Mother	—	—	—	—	—

19. What was your father's job when you left school? Did your mother have a job?

	<u>Job</u>		<u>Average</u>
	<u>Occupation</u>	<u>Description</u>	<u>Yearly</u>
			<u>Salary</u>
Father	—	—	—
Mother	—	—	—

20. (a) Did your family ever move while you were in school?

Yes No

(b) (If yes) How many times? _____

(c) (If yes) During which grades did you switch schools as a result?

(Circle Grade) 1 2 3 4 5 6 7 8 9 10 11 12

21. (a) Did you have your own car while you went to school?

Yes No

- (b) Did you use the family car? (1) Often
(2) About the same as other kids
(3) Seldom
(4) Never

22. Did you participate in any sports or other activities such as speech, debates, band, etc. while you were in school? (Please list)

Any activities outside of school such as 4-H, Boy Scouts, etc? (Please list)

23. What other activities or hobbies occupied your time (i.e. movies, sporting events, bowling, car cruising, youth center, local hang-out, pool, etc.).

24. Did you ever miss school for employment or for work at Home? Yes No (If yes) When and under what conditions?

IV. Physical Disabilities

25. Do you have a physical disability which has lasted for 6 months or longer or which is likely to last that long?
Yes No

- (a) If no, draw lines through b to g and go on with question 26. If yes, ask the following:
- (b) Specify type (heart ailment, T.B., nephritis, etc. or record your own observation).
- (c) How old were you when the disability began? _____
- (d) Has the disability prevented your getting a job? Yes No
- (e) Has it limited the kind of job you can take? Yes No (If defect obviously does, record your observation without asking the question.)
- (f) Would you like to help in preparing yourself for work?

(1) Yes____; (2) No____; (3) Feels vocational training is impossible for him for physical reasons____;
(4) Does not expect to be in labor force for reasons not connected with disability (marriage, etc.)____.
(5) No clear response____.

V. Occupational Training and Ambitions

26. What occupation(s) did you consider while you were in school?

27. Did your school offer any courses which would help you in this job?

28. Have you had any job training since you left school? Yes No

<u>Name of School Organization</u>	<u>Course or Training</u>	<u>When & How Many Months</u>	<u>Did you Complete</u>
--	-------------------------------	---------------------------------------	-----------------------------

29. (a) Have you served active duty in the military service? Yes No

(b) How long were you in the military service? _____

(c) Did you secure any special training while in the military service? (specify) Yes No

30. If you had an opportunity at the present time would you like to enroll in any job training? Yes No

(IF "NO", SKIP TO QUESTION 33.)

31. For what occupation (what specific job) would you like to be trained? Or would you like to have additional training or retraining for your present job?

32. When could you attend such training? (1) Full time
(2) Part time

If part time:

- | | |
|----------------|---------------|
| (1) Mornings | (3) Evenings |
| (2) Afternoons | (4) Saturdays |

33. What financial cost would you be willing to pay, if any?

- (1) None
- (2) Transportation only
- (3) Tuition and transportation

34. Would you be interested in obtaining a high school equivalency certificate? Yes No

(If yes) Which of the following ways of obtaining the certificate would be best for you?

- (a) By passing a two hour test administered by the State Board of Public Instruction.
- (b) By taking equivalent course work in a special school, such as will be offered in the Iowa area schools.

(If b) When could you attend such training?

- (1) Full time
- (2) Part time

If part time:

- | | |
|----------------|---------------|
| (1) Mornings | (3) Evenings |
| (2) Afternoons | (4) Saturdays |

- VI. Opinions Concerning School and Reasons for Dropping Out**
36. (a) In terms of your present occupation rate the following high school course areas according to their value to you.

- (b) How interesting was the course?
 (c) How difficult was the course?

COURSE	NOT DIFFICULT	DIFFICULTY									
		SLIGHTLY DIFFICULT	DIFFICULT	VERY DIFFICULT	NOT INTERESTING	SLIGHTLY INTERESTING	INTERESTING	VERY INTERESTING	NO IMPORTANCE	LITTLE IMPORTANCE	IMPORTANT
NUMBER OF SEMESTERS TAKEN											
NOT OFFERED											
MATHEMATICS											
ENGLISH											
SCIENCE (GEN, BIO, CHEM)											
DRIVERS EDUCATION											
INDUSTRIAL ARTS (SHOP-WOOD AND METAL-ELECTRICITY)											
BOOKKEEPING AND BUSINESS											
SOCIOLOGY AND PSYCHOLOGY											
FOREIGN LANGUAGE											
HISTORY AND ECONOMICS (GOV'T)											
TYPING											
JOURNALISM											
GEOGRAPHY											
ART											
SHORTHAND											
MUSIC											
HOME ECONOMICS											
DISTRIB. ED.											
OFFICE OCCUPATIONS											
TRADE AND INDUSTRIAL											
VOCATIONAL AGRICULTURE											
OTHER											

36. (a) Did you encounter any academic difficulty while in school? Have you repeated any grades? (Interviewer should determine which grades or courses.)

- (b) How would you rank yourself? (1) Upper quartile
(2) Second quartile
(3) Third quartile
(4) Lower quartile

37. (a) In what ways do you think your school could have been more helpful to you?

(b) What occupational or technical courses would you have taken in high school if they had been offered?

(c) If such courses had been offered, would you have remained in school?

38. Were your closest friends out of school? Yes No

39. Did your family urge you to stay in school? Yes No
Did your friends? Yes No

40. Did your teachers seem interested in you? Yes No

41. Did teachers give you individual help when you asked?
Yes No

42. Did you have a dislike for any of your teachers or school officials? Yes No

Did this contribute to your dropping out? Yes No

43. Did you have any unpleasant experiences with other students? Yes No Teachers? Yes No

44. Were you happy living at home? Yes No

(a) Before you finally dropped out of school had you previously left and re-entered school? Yes No
(If yes) When?

(b) How long had you thought about leaving school before you finally dropped out?

45. Why did you leave school before completing the 12th grade?

In your own words describe what happened when you left?

What would have kept you in school?

46. One community in California assigns a local businessman as an advisor to potential drop-outs. He takes the student on various outings such as sporting events, plays, or sometimes lunch.

After they become well acquainted, they discuss the student's future occupational and educational plans. Do you think that such a system has merit? Might it have kept you in school?

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.
ERIC DOCUMENT RESUME

DATE OF RESUME

1. ACCESSION NO.	2. ERIC SATELLITE CODE	3. CLEARINGHOUSE CONTROL NO.	FOR INTERNAL ERIC USE ONLY (Do Not Write In Space Below)
4. SOURCE Iowa State University Ames, Iowa 50010			DATE RECEIVED
5. TITLE Occupational Problems and Vocational Training Needs of High School Dropouts from Rural Areas in Iowa (refer to field #12) Project 2, Final Report, (7/65-11/66).			IS MICROFILM COPY AVAILABLE? (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No
6. AUTHOR(S) Howe, Trevor G. & Buntrock, Kermit 7. DATE 11/21/66 8. PAGINATION 60 p 9. REFERENCES 7			IS DOCUMENT COPYRIGHTED? (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No
10. REPORT/SERIES NO. Project 2			HAS COPYRIGHT RELEASE BEEN GRANTED? (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No
11. CONTRACT NO. O.E. 5-85-108			DATE, NAME, AND COMPLETE ADDRESS OF AUTHORITY TYPE OF RELEASE
12. PUBLICATION TITLE Appendix of Final Research Reports for Project in Research & Development in Vocational & Tech- nical Education: Non-metropolitan Areas.			
13. EDITOR(S) N.A.			
14. PUBLISHER Iowa State University. Ames, Iowa 50010			
15. ABSTRACT (250 words max.)			

This study was concerned with the occupational problems and vocational training needs of high school dropouts. By means of a personal interview, information was gathered and analyzed for the ten year period after the dropouts withdrew from high school.

Starting with 224 dropouts, in the sample, 50% had left the state. All of the 102 dropouts interviewed were living in Iowa, one-half residing in the same county as when attending school. Most of the dropouts came from large families and frequently had brothers and sisters who also had dropped out. Males gave lack of success or interest and females marriage or pregnancy as major reasons for leaving school.

A difference of nearly a year in unaccountable time since leaving school and length of time in the labor force for the males, was attributed to unemployment and lack of job skills in the first years. Median income for the males was \$59 per week, first job and \$109 per week present job.

Dropouts' response had implications for post-high school programs of occupational training in the new area schools. About 55% of the males and 56% of the females indicated they would be interested in further job training. Male interests were in the skilled craft areas, mechanical, agricultural, drafting, electronics, and welding. Female interests for training were in secretarial, cosmetology, medical technology, and nursing. Twelve females and twelve males reported they had received some special occupational training since leaving school.

16. RETRIEVAL TERMS (Continue on reverse)

17. IDENTIFIERS

INSTRUCTIONS FOR COMPLETING ERIC DOCUMENT RESUME

The resume is to be used for storing summary data and information about each document acquired, processed, and stored within the ERIC system. In addition to serving as a permanent record of each document in the collection, the resume is also the primary means of dissemination. The upper left corner of the form (fields 1-14) is designed to conform to descriptive cataloging standards set forth by the Committee on Scientific and Technical Information (COSATI). Read the following instructions and complete the resume as directed.

A. GENERAL INSTRUCTIONS:

1. Read each entry point. If any point is not applicable, place "N.A." in the appropriate field. Except for those which you are instructed to leave blank, all fields must be completed with either the required information or "N.A."
2. Enter date of completion of the resume in space provided in upper right corner.
3. Entry must fit into space provided; if necessary use standardized abbreviations as cited by the American Psychological Association Publication Manual. (Publication Manual may be obtained from the American Psychological Association, Order Department, 1200 17th Street, NW., Washington, D. C. 20036.)

B. SPECIFIC INSTRUCTIONS:

Field 1. Accession No.: Leave blank. A permanent ED number will be assigned to each report and attendant documentation records as they are processed in the ERIC system.

Field 2. ERIC Satellite Code: Enter 3-digit code number assigned by ERIC to clearinghouse operation. If no code has been assigned, leave blank.

Field 3. Clearinghouse Control No.: If you are acting as a clearinghouse, enter the identifying number you have assigned to the document.

Field 4. Source: Enter corporate author, corporate source, or institutional affiliation of the author who originated the document. Include complete name and complete address of source, where possible. The Atomic Energy Commission Corporate Author Entries, TID-5059 (6th Rev.) will be the authority for corporate source citations. (AEC Corporate Author Entries may be obtained from Clearinghouse for Federal Scientific and Technical Information, National Bureau of Standards, U.S. Department of Commerce, Springfield, Virginia.)

Field 5. Title: Enter full document title. If document comprises only a portion of the total publication or release, refer to field #12. Include subtitles if they add significantly to information in the title proper.

Enter volume numbers or part numbers, where applicable, as an added entry following the title.

If the document has been identified with a project number, enter the project number as an added entry following the volume or part numbers.

Include the type of report (whether proposal, in-progress, final, follow-up) as an added entry following the project number, where applicable. Following the type of report, enter the inclusive dates covered by the report, by month and year. (Example: 1/63 - 7/63.)

Field 6. Author(s): Enter personal author(s) (corporate author is entered in field #1), last name first. (Example: Doe, John.)

If two authors are given, enter both. In the case of three or more authors, list only the principal author followed by "and others," or, if no principal author has been designated, the first author given followed by "and others." (Example: Doe, John and others.)

Field 7. Date: Enter date of release of document by month and year. (Example: 12/65.)

Field 8. Pagination: Enter total number of pages of document, including illustrations, appendices, etc. (Example: 115 p.)

Field 9. References: Enter number of references cited in the bibliography of the document. (Example: 106 ref.)

Field 10. Report/Series No.: Enter any unique number assigned to the document by the publisher or corporate source. (Example: OE-53015; LX-135.) Do not enter project numbers; these are added entries field #5.

Also enter journal citations by name of journal, volume number, and pagination. (Example: NAEB Journal, v. II, pp. 52-73.) Do not include date; date is entered in field #7.

Field 11. Contract No.: If document has been supported by the U.S. Office of Education, enter the OE contract number.

Field 12. Publication Title: If document abstracted comprises only a portion of the total publication or release, enter complete title of publication. (Examples: Four Case Studies of Programmed Instruction; The Automation of School Information Systems.) For journal titles, spell out any abbreviations. (Example: National Association of Educational Broadcasters Journal.)

Field 13. Editor(s): Enter editor(s) last name first. (Example: Doe, Mary.) If two editors are given, enter both. In the case of three or more editors, list only the principal editor followed by "and others," or, if no principal editor has been designated, the first editor given followed by "and others." (Example: Doe, Mary and others.)

Field 14. Publisher: Enter name and location (city and state) of publisher. (Example: McGraw-Hill, New York, New York.)

Field 15. Abstract: Enter abstract of document, with a maximum of 250 words.

Field 16. Retrieval Terms: Enter conceptually structurable terms which, taken as a group, adequately describe the content of the document. If terms do not fit into space provided on recto, use space allotted on verso for additional terms.

Codes: Leave blank. Codes will be assigned for internal retrieval purposes.

Field 17. Identifiers: Enter all terms which would not fit into a structured vocabulary. Examples are: trade names, equipment model names and numbers, organizations, project names (Project Headstart, Project English), code names, code numbers.

16. RETRIEVAL TERMS (Continued)